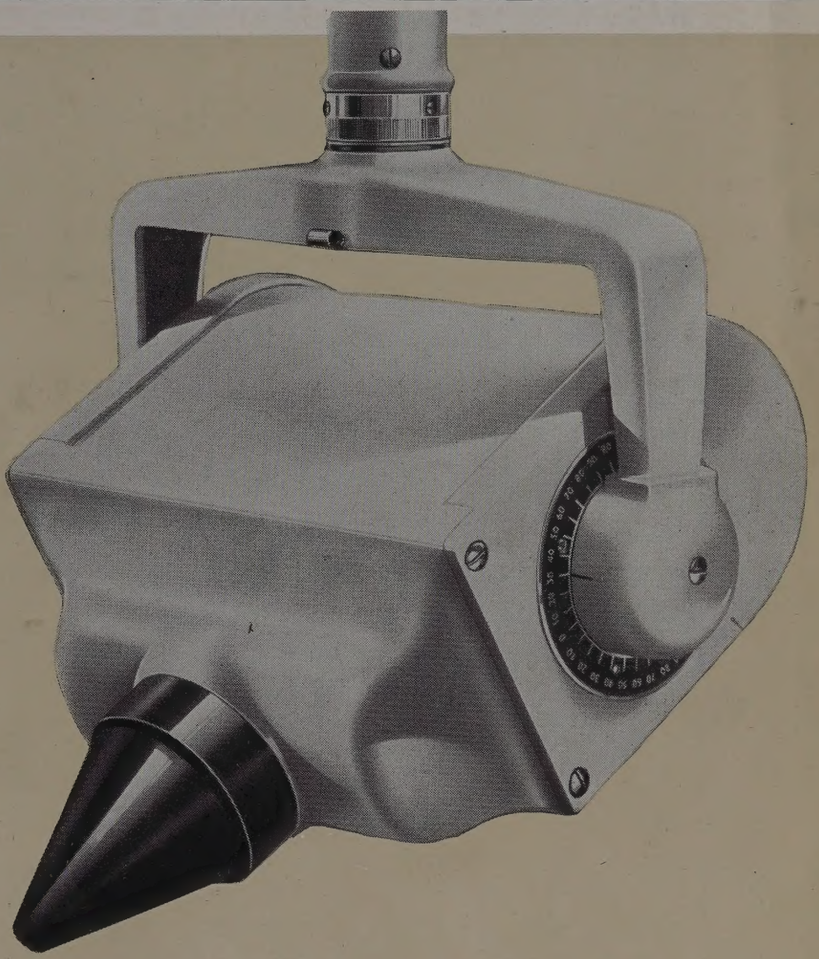
PUBLICATION No. 320
SECOND EDITION

# WATSON

*British made*

## X-RAY APPARATUS



# *The* "KINGSWAY" *Dental X-Ray Outfit*

**PEDESTAL,**

**WALL BRACKET,**

**& UNIT MODELS**

WATSON
WEMBLEY

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# *The* "KINGSWAY"

## DENTAL X-RAY OUTFIT

MADE IN ENGLAND

That an x-ray apparatus is a necessity to the efficient practice of dentistry is today accepted as a fact. The practitioner has therefore to decide only which model to buy. He may well be guided in his choice by the example set by the majority—those who use a Watson " Kingsway " Outfit.

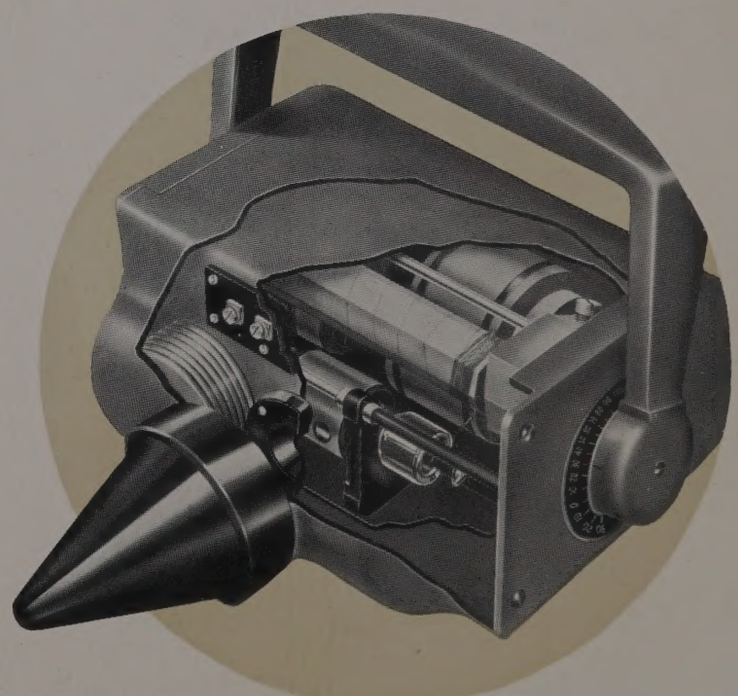
In the design of this apparatus are embodied the results of long experience and the up-to-date research facilities of the leading British manufacturer of x-ray equipment. As it now transpires, no major change has taken place in the design of the " Kingsway " Outfit since its introduction in 1938. Experience has shown how admirably it fulfils the needs of dental practice. It has the power necessary for *all* aspects of dental radiography, the ease of handling which makes its use a pleasure and, above all, it is really reliable. Hundreds of " Kingsway " Outfits have been continuously in use for many years without requiring attention of any kind. Even after a lifetime of service they command an exceptionally high secondhand price.

The " Kingsway " Outfit is now available in three models; Mobile Pedestal, Wall Bracket, and Chairside Unit. So far as the electrical components are concerned, all are identical and the finish in each case conforms to the highest dental standards.

ALL MODELS ARE AVAILABLE IN THE FOLLOWING STANDARD DENTAL COLOURS

*Off-white, Ivory Tan, Cream-white, Neptune-green, Black.*

*Special colour finishes can be supplied to order.*



**Part section of the " Kingsway " tube-head showing the Machlett x-ray tube, transformers, oil-expansion bellows and vacuum-sealed casing. The automatically stabilised x-ray output (60kV., 10mA.) is unimpaired under all atmospheric conditions. Complete electrical safety is assured and the x-ray protection is adequate.**

**The tube-head is free to rotate in a gimbal, the angle being shown by scales at each side.**

22501938669

# *For* every *aspect of dental radiography . . . .*

## INTRA-ORAL

The fine-focus Machlett x-ray tube, a detachable diaphragm, and 9 inch focus/film distance combine with other technical factors to ensure needle-sharp definition of the tooth structure and surrounding tissues.

Positioning is simplified by the convenient shape and universal adjustability of the tube head.

For the best results with greatest latitude the use of " contrast " grade is recommended except for children and nervous patients.

## EXTRA-ORAL

The output of the " Kingsway " head (10mA., 60kV.) is adequate for such subjects as the tempero-mandibular articulation and profile radiography. Even for busy dental hospital work the oil-immersed tube-head has a reserve of power and will not be over-loaded.

When required, full tuition in radiographic and darkroom technique is given to purchasers.

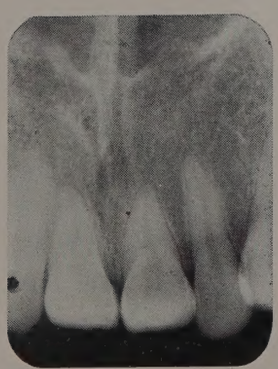
(Some of the quality of the original radiographs is unavoidably lost in the process of reproduction)

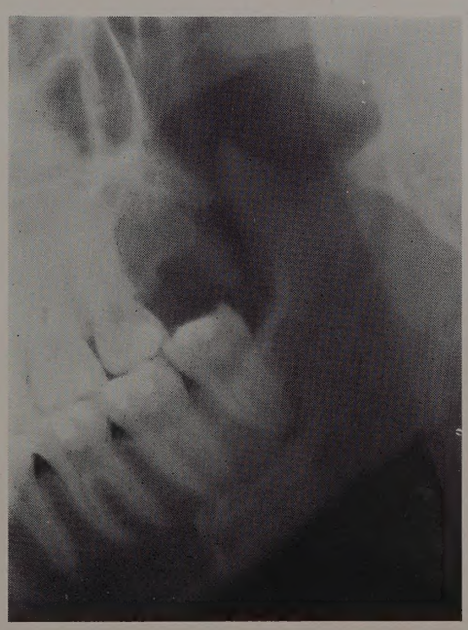
The radiograph below shows the opposite side of the jaw to that being taken in the illustration above.

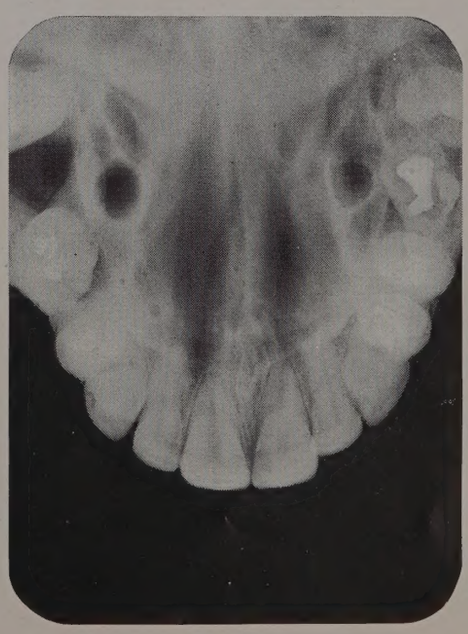
## OCCLUSAL

Shown above is the recommended position for the upper anterior occlusal view as reproduced below. The occlusal method is employed for many purposes; to determine the presence of unerupted teeth or foreign bodies, for locating fractures of the lower jaw, the bucco-lingual relationship of teeth.

The superb definition and adequate penetration assured by the use of the " Kingsway " outfit is a great aid to interpretation.







# *The* "KINGSWAY" Pedestal model

For the majority of dental practices, this is the x-ray equipment of choice. Mounted on self-aligning castors, it is easily wheeled into position when required, and can if necessary be used in adjacent surgeries—it will pass through even the lowest doorway.

The cross-arm supporting the tube-head is perfectly counterweighted, provides transverse travel, and can be rotated. The tube-head itself is supported in a gimbal which permits a full range of rotation in two planes, the head remaining steady in any position. A complete radiographic examination of the upper and lower teeth can be carried out without changing the position of the pedestal.

A rayproof two-compartment film safe is incorporated in the pedestal, and red and green pilots lights to indicate when the mains are on and the x-ray tube energised respectively.

Well designed and beautifully finished to match other dental equipment, the " Kingsway " Pedestal Model makes a handsome and invaluable addition to the surgery.

## THE TIMESWITCH

The hand timeswitch, illustrated below, is attached to a flexible lead permitting the operator to stand clear of the x-ray beam during the exposure.

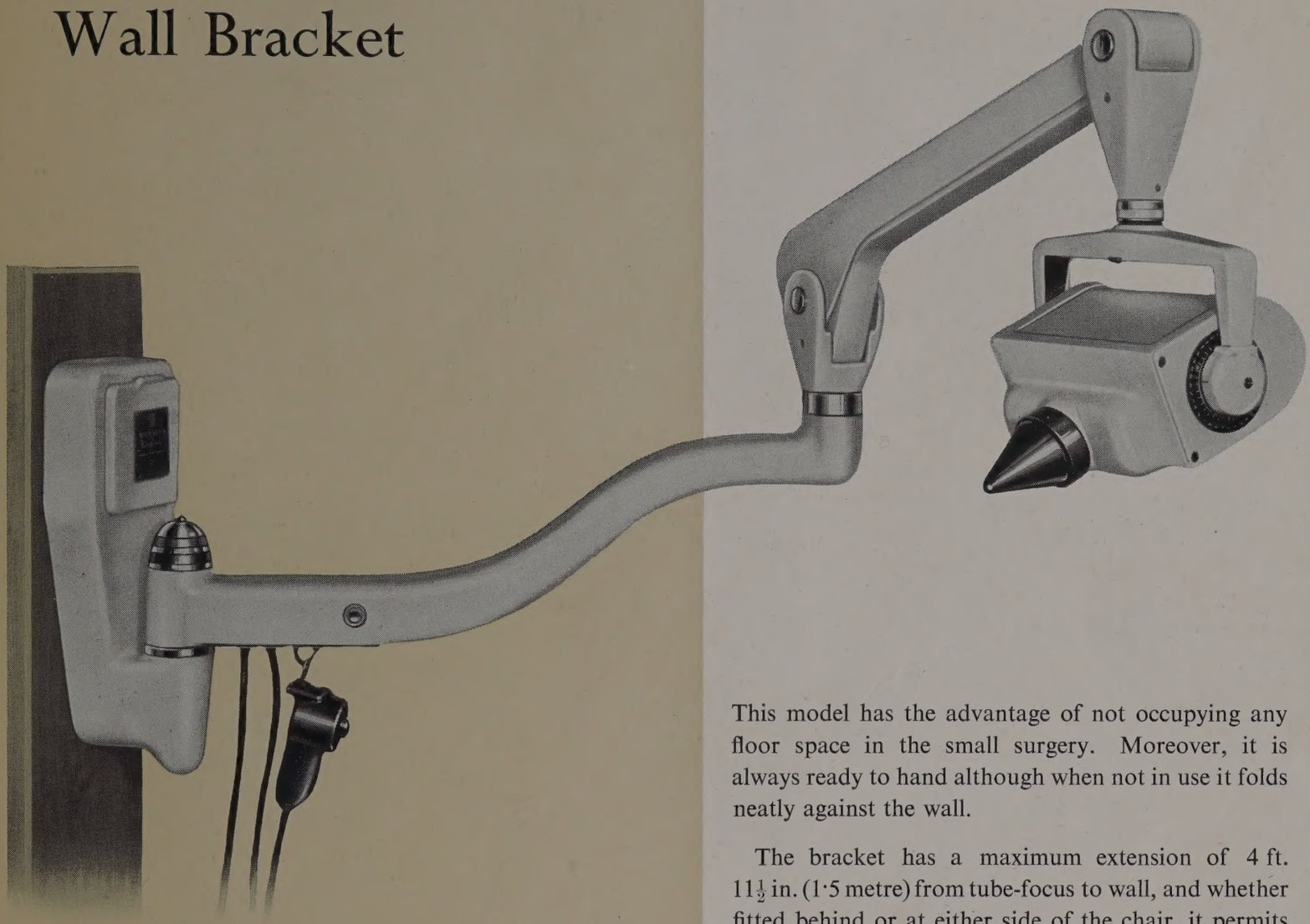
The timeswitch is a precision instrument with substantial alloy contacts to ensure long and trouble-free operation. The dial is calibrated in $\frac{1}{4}$ second divisions up to twelve seconds. It is necessary only to set the pointer to the required exposure time as indicated by the Technique Chart, and press the button. If the setting pointer should inadvertently be set beyond the required exposure time, it may be turned back to the required value.

## X-RAY PROTECTION

" Kingsway " Dental X-Ray Outfits conform with International and British Recommendations regarding x-ray and electrical protection. All high tension is enclosed in an earthed metal casing, and the x-ray tube itself is of the self-protective type permitting only the useful x-ray beam to emerge.

The operator should of course, observe the precaution of standing well clear of the x-ray beam and patient during the exposure, the length of lead attached to the timeswitch being adequate for this purpose.

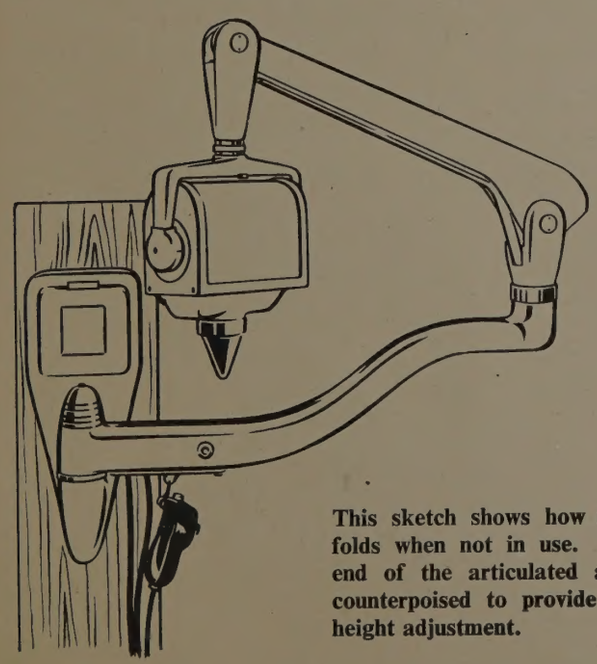
# The "KINGSWAY" Wall Bracket



This model has the advantage of not occupying any floor space in the small surgery. Moreover, it is always ready to hand although when not in use it folds neatly against the wall.

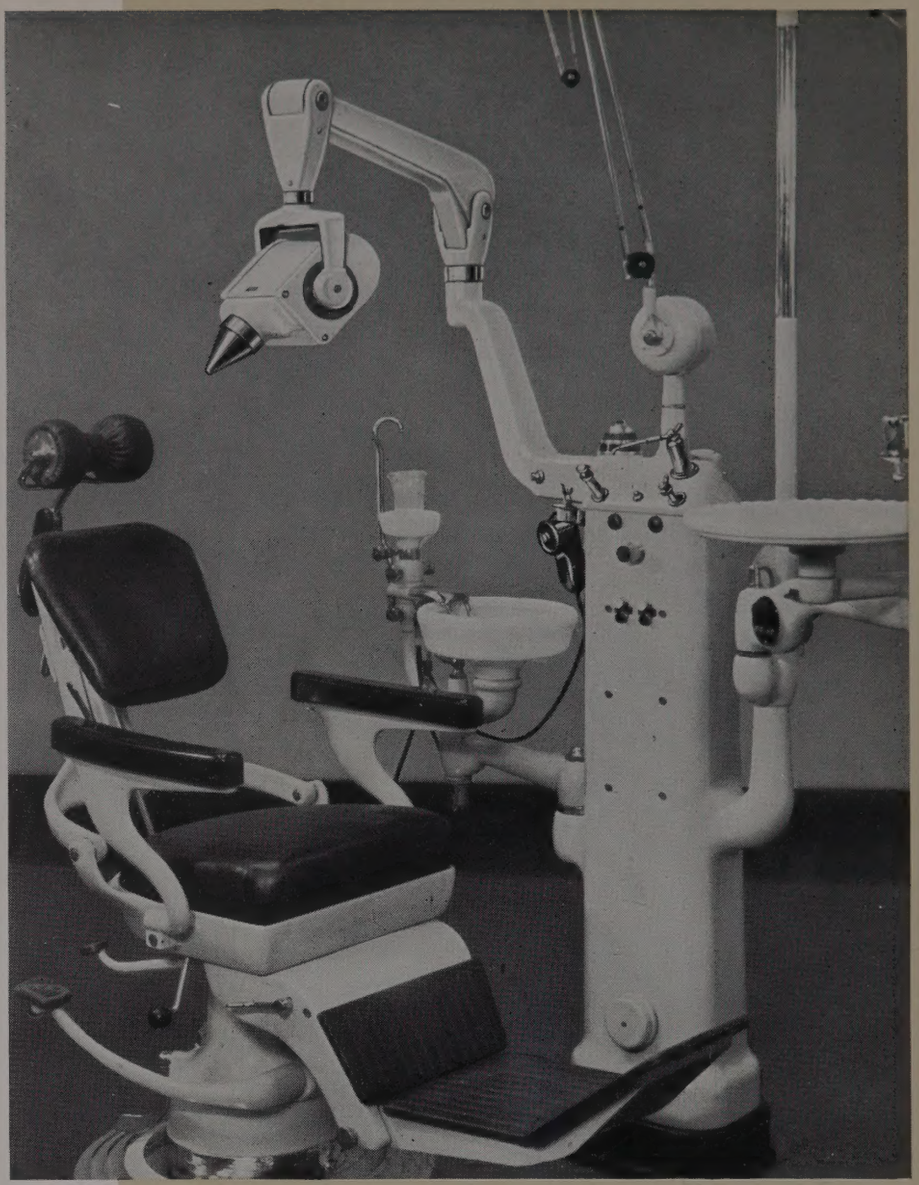
The bracket has a maximum extension of 4 ft. 11½ in. (1·5 metre) from tube-focus to wall, and whether fitted behind or at either side of the chair, it permits the operator to carry out a full mouth examination with ease and speed. (For extent of movement, see diagram on page seven).

The bracket itself is of pleasing modern design, incorporating a rayproof film-safe with technique chart in the lid, and a neat arrangement of concentric coloured pilot lights showing respectively when the apparatus and x-ray tube are energised. A polished oak board is provided to spread the load on the wall and thus to minimise installation difficulties.



**This sketch shows how neatly the unit folds when not in use. The tube-head end of the articulated arm is spring-counterpoised to provide the necessary height adjustment.**

# *The* "KINGSWAY" Chairside Unit model



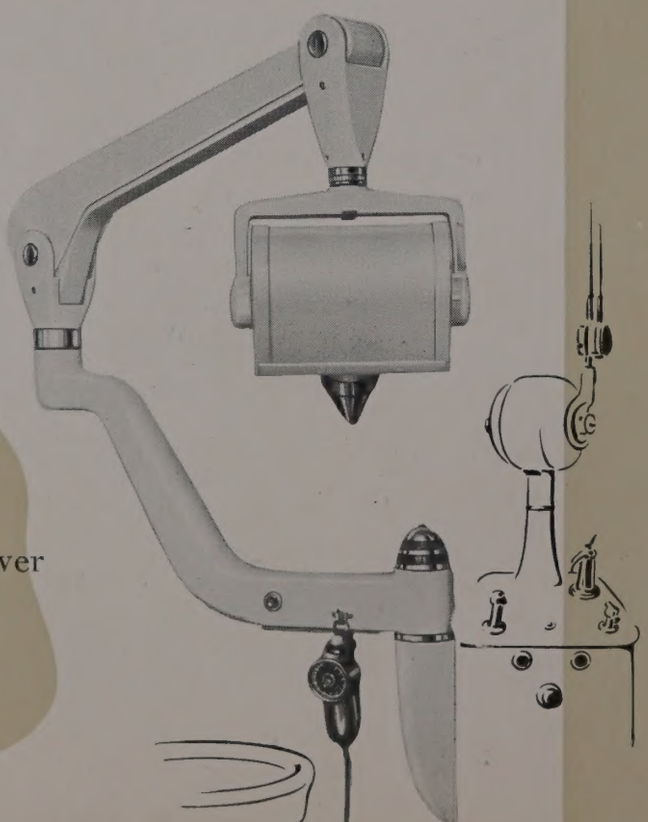
The Kingsway head is supported on a special bracket for attachment (by means of adaptors) to most makes of chairside unit. Thus for the first time a full-power x-ray unit of British manufacture is available to the dentist who prefers this arrangement or is obliged to adopt it through lack of space.

The tube-head is always ready to hand and can with the greatest ease be adjusted for radiography of the upper or lower teeth on both sides. When not in use, it folds compactly and in no way obstructs the instruments attached to the dental unit.

The hand timeswitch is attached to a flexible lead sufficiently long to permit the operator to stand clear of the path of radiation, and two hooks are provided in alternative positions for hanging the handswitch when it is not in use. Pilot lights indicate when the mainswitch is on, and the x-ray tube energised.

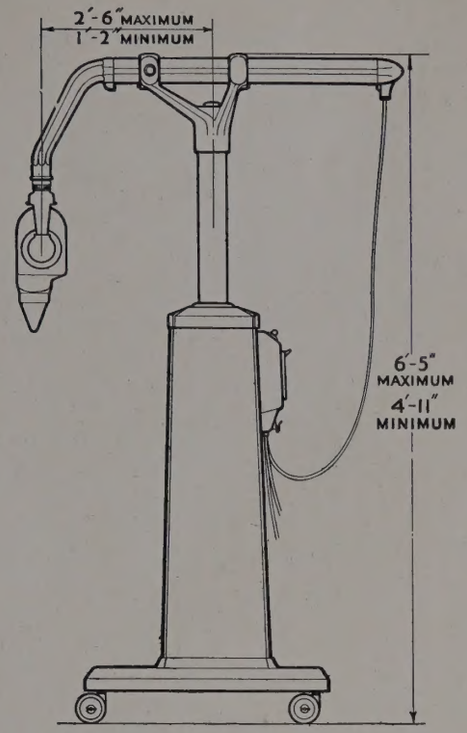
The bracket blends with the lines and colour of modern chairside units, and can be fixed unobtrusively, including the electrical connections.

At the left the apparatus is shown folded out of the way but always in readiness for instant use. The main switch is seen to the left of the hand timeswitch.

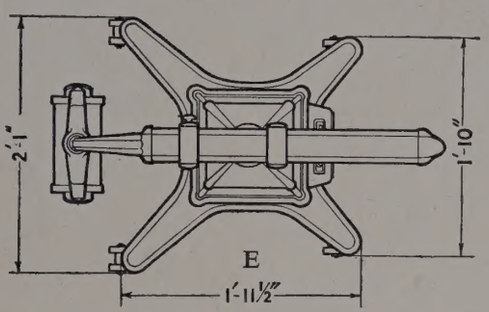


*A* full-power *chairside x-ray unit*

## PEDESTAL MODEL

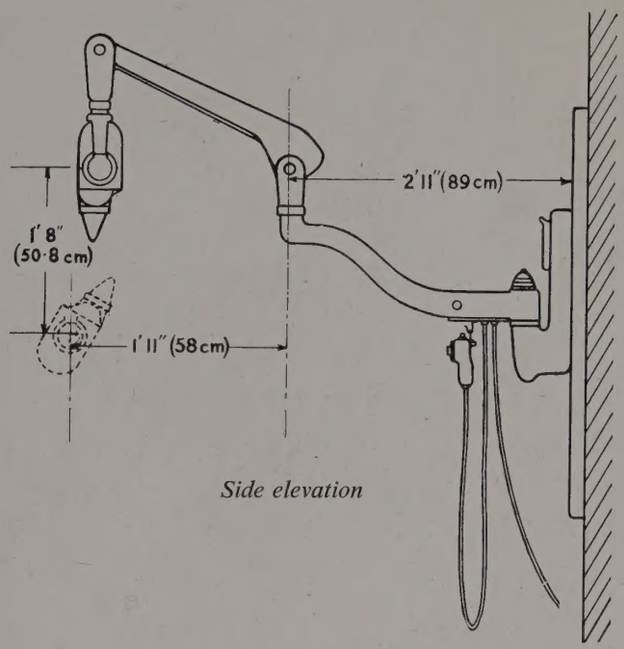



*Side elevation*

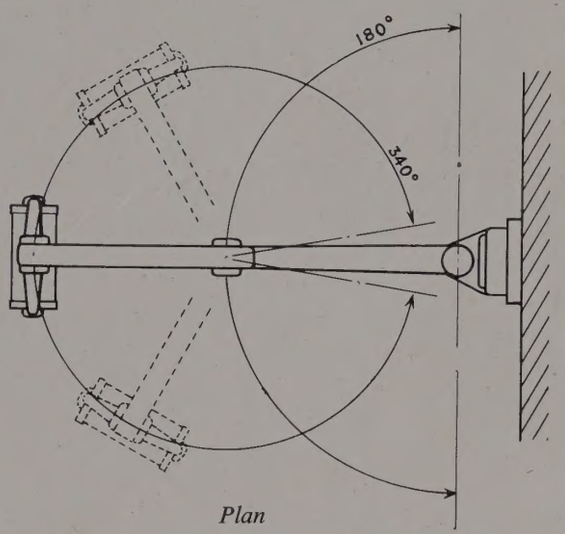



*Plan*

## WALL BRACKET MODEL




*Side elevation*




*Plan*

*The above half-inch scale drawing shows the wide range of adjustability of the Wall Bracket model. In the case of the Chairside Unit model, the spring-counterweighted arm supporting the x-ray tube-head is identical, and the rotatable part attached to the unit has an overall length of 2′ 1″ (63 cm.).*

## SHIPPING INFORMATION

| | Nett Weight | | | | Gross Weight | | | | Dimensions | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cwt. | Qr. | Lb. | Kg. | Cwt. | Qr. | Lb. | Kg. | Inches | Centimetres |
| Pedestal Model ... | 2 | 0 | 2 | 102 | 3 | 1 | 19 | 173 | 32×31×55 | 81×78×139 |
| Wall Bracket Model ... | 1 | 0 | 2 | 51 | 2 | 0 | 5 | 103 | 56×42×14 | 142×106×35 |
| Chairside Model ... | 0 | 3 | 22 | 48 | 1 | 0 | 23 | 61 | 42×38×14 | 106×96×35 |

*This equipment is approved by the Canadian Standards Association Approvals Laboratories.*

## SERVICE

The " Kingsway " Outfit rarely needs attention and can be relied on to give many years of trouble-free service. The manufacturers, however, maintain a world-wide service organisation in connection with their major hospital x-ray apparatus, and expert advice is therefore readily available whenever and wherever it is needed.

# "KINGSWAY" ORDERING INFORMATION

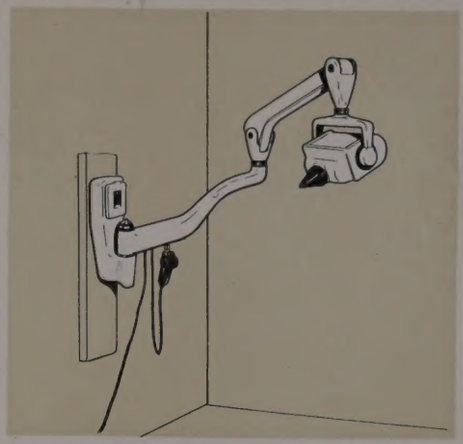
## MOBILE PEDESTAL MODEL

Comprising: Oil-immersed tube-head rated at 60kV., 10mA., with Machlett self-protected x-ray tube. The tube-head is mounted in a gimbal and is equipped with angulating scales, a detachable limiting diaphragm and ray-transparent director cone.

The *Pedestal* with vertical and transverse adjustment, is mounted on self-aligning castors and is fitted with a film safe, " Mains On " and " X-Rays On " pilot lights, mainswitch, and cleats for the mains lead.

The Handswitch (0.25-12 sec.) is attached to the switch-box by a flexible lead.

*Catalogue No.* 320/1



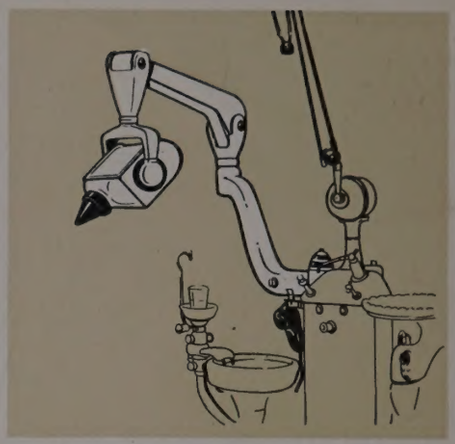
## WALL BRACKET MODEL

Comprising: Oil-immersed tube-head rated at 60kV., 10mA., with Machlett self-protected x-ray tube. The tube head is mounted in a gimbal and is equipped with angulating scales, a detachable limiting diaphragm and ray-transparent director cone.

The *Wall Bracket* is supplied complete with an oak board on which the bracket itself is mounted during installation. The wall bracket incorporates a film safe and "Mains On" and "X-Rays On" pilot lights. The articulated extension arm is spring counterweighted and has an adequate range of movement as indicated in the diagram on page 7.

The mainswitch is located at the lower end of the extension bracket together with a hook for the Handswitch (0.25-12 sec.) which is attached to the unit by a flexible lead.

*Catalogue No.* 320/2



## CHAIRSIDE UNIT MODEL

Comprising: Oil-immersed tube-head rated at 60kV., 10mA., with Machlett self-protected x-ray tube. The tube head is mounted in a gimbal and is equipped with angulating scales, a detachable limiting diaphragm and ray-transparent director cone.

The bracket extension is equipped with an adaptor casting which is suitable for attachment to the majority of makes of chairside units and incorporates a mainswitch, " Mains On " and " X-Rays On " pilot lights, and a hook for the handswitch.

The Handswitch (0.25-12 sec.) is attached to the adaptor casting by a flexible lead.

When ordering please specify make and type of chairside unit.

*Catalogue No.* 320/3

**MAINS SUPPLY.** As normally supplied, all " Kingsway " Outfits are adjustable, by means of voltage tappings, to A.C. supplies of 200—255 volts, 40 to 60 cycles. For other A.C. voltages a small auto-transformer can be supplied at extra cost, and for Direct Current mains a rotary convertor. Units suitable for 60 to 100 cycle supplies can be supplied to order. Consumption at 240 volts is approximately 5 amperes.

**WARRANTY.** The " Kingsway " Dental X-Ray Outfit, including the X-Ray Tube, is covered by a comprehensive 12 months' guarantee. Its potentially useful life, without the necessity for replacements of any kind, is infinitely greater.

Periodical maintenance visits by our engineers, after the expiration of the guarantee period, can be arranged at a nominal charge.

Whilst every care it taken to ensure the accuracy of the descriptions and illustrations in this publication, Watson & Sons (Electro-Medical) Limited reserve the right to make such alterations in the design of the apparatus as they may consider to be in the interest of the customer. All orders are accepted subject to the Company's printed Conditions of Sale.

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